

SYSTEMS AND METHODS FOR ADAPTIVE SAMPLING AND ESTIMATING A SYSTEMATIC RELATIONSHIP BETWEEN A PLURALITY OF POINTS

ABSTRACT OF THE DISCLOSURE

[0040] Systems and methods for estimating a systematic relationship between a plurality of points include determining an estimated systematic relationship representative of the plurality of points according to an estimation function and based on a given set of measured points. The estimated systematic relationship having coordinate data and normal vector data associated with the given set of points and corresponding to at least a portion of the plurality of points. Further, an adaptive sampling mechanism may automatically determine whether further measurements are required based on the estimated systematic relationship and based on predetermined measurement criteria. Additionally, a data verification device may remove inaccurate data from the estimation process.